

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

Claim 1 (Original): A seed comprising at least one set of the chromosomes of maize inbred line PH6ME, representative seed of said line having been deposited under ATCC Accession No. PTA-4529.

Claim 2 (Previously Presented): A maize plant produced by growing the seed of claim 1.

Claim 3 (Original): A maize plant part of the maize plant of claim 2.

Claim 4 (Original): An F1 hybrid maize seed produced by crossing a plant of maize inbred line designated PH6ME, representative seed of said line having been deposited under ATCC Accession No. PTA-4529, with a different maize plant and harvesting the resultant F1 hybrid maize seed, wherein said F1 hybrid maize seed comprises two sets of chromosomes and one set of the chromosomes is the same as maize inbred line PH6ME.

Claim 5 (Original): A maize plant produced by growing the F1 hybrid maize seed of claim 4.

Claim 6 (Original): A maize plant part of the maize plant of claim 5.

Claim 7 (Previously Presented): An F1 hybrid maize seed comprising an inbred maize plant cell of inbred maize line PH6ME, representative seed of said line having been deposited under ATCC Accession No. PTA-4529.

Claim 8 (Original): A maize plant produced by growing the F1 hybrid maize seed of claim 7.

Claim 9 (Previously Presented): The F1 hybrid maize seed of claim 7 wherein the inbred maize plant cell comprises two sets of chromosomes of maize inbred line PH6ME.

Claim 10 (Original): A maize plant produced by growing the F1 hybrid maize seed of claim 9.

Claim 11 (Previously Presented): A maize plant having all the physiological and morphological characteristics of inbred line PH6ME, wherein a sample of the seed of inbred line PH6ME was deposited under ATCC Accession Number PTA-4529.

Claim 12 (Previously Presented): A process of producing maize seed, comprising crossing a first parent maize plant with a second parent maize plant, wherein one or both of the first or the second parent maize plants is the plant of claim 11, wherein seed is allowed to form.

Claim 13 (Previously Presented): The maize seed produced by the process of claim 12.

Claim 14 (Previously Presented): The maize seed of claim 13, wherein the maize seed is hybrid seed.

Claim 15 (Previously Presented): A hybrid maize plant, or its parts, produced by growing said hybrid seed of claim 14.

Claim 16 (Canceled)

Claim 17 (Previously Presented): A cell of the maize plant of claim 11.

Claim 18 (Previously Presented): A seed comprising the cell of claim 17.

Claims 19-22 (Canceled).

Claim 23 (Previously Presented): The maize plant of claim 11, wherein said plant is further defined as comprising a gene conferring male sterility.

Claim 24 (Previously Presented): The maize plant of claim 11, wherein said plant is further defined as comprising a transgene conferring a trait selected from the group consisting of male sterility, herbicide resistance, insect resistance and disease resistance.

Claim 25 (Previously Presented): A method of producing a maize plant, the method comprising the steps of:

- (a) growing a progeny plant produced by crossing the plant of claim 11 with a second maize plant;
- (b) crossing the progeny plant with itself or a different plant to produce a seed of a progeny plant of a subsequent generation;
- (c) growing a progeny plant of a subsequent generation from said seed and crossing the progeny plant of a subsequent generation with itself or a different plant; and
- (d) repeating steps (b) and (c) for an additional 0-5 generations to produce a maize plant.

Claim 26 (Previously Presented): The method of claim 25, wherein the produced maize plant is an inbred maize plant.

Claim 27 (Previously Presented): The method of claim 26, further comprising the step of crossing the inbred maize plant with a second, distinct inbred maize plant to produce an F1 hybrid maize plant.

Claims 28-29 (Canceled)

Claim 30 (Currently amended): A method of plant breeding comprising the steps of:

- (a) obtaining the molecular marker profile of maize inbred line PH6ME, representative seed of said line having been deposited under ATCC Accession No. PTA-4529;
- (b) obtaining an F1 hybrid seed for which the maize plant of claim 13 is a parent;

- (c) crossing a plant grown from the F1 hybrid seed with a different maize plant[[],]; and[[],]
- (d) selecting progeny that retain the molecular marker profile of PH6ME.

Claim 31 (New): A process of producing a conversion of maize inbred variety PH6ME comprising at least one new trait, the process comprising:

- (a) crossing a plant of maize inbred variety PH6ME, representative seed of which has been deposited under ATCC Accession Number PTA-4529, with a plant of another maize variety that comprises at least one new trait to produce progeny seed;
- (b) harvesting and planting the progeny seed to produce at least one progeny plant of a subsequent generation, said progeny plant comprising the at least one new trait;
- (c) crossing the progeny plant with a plant of maize inbred variety PH6ME to produce backcross progeny seed;
- (d) harvesting and planting the backcross progeny seed to produce at least one backcross progeny plant; and
- (e) repeating steps (c) and (d) for at least three additional generations to produce a converted plant of inbred variety PH6ME, wherein the converted plant of inbred variety PH6ME comprises the at least one new trait.

Claim 32 (New): A converted plant of inbred variety PH6ME produced by the process of claim 31.

Claim 33 (New): The maize plant of claim 32, wherein the at least one new trait is selected from the group consisting of herbicide tolerance; insect resistance; resistance to bacterial, fungal, nematode or viral disease; yield enhancement; waxy starch; improved nutritional quality; male sterility and restoration of male fertility.

Claim 34 (New): A method for developing a maize plant in a maize plant breeding program comprising introducing a transgene conferring a trait into inbred variety PH6ME, wherein a

representative sample of seed of variety PH6ME has been deposited under ATCC Accession No. PTA-4529.

Claim 35 (New):      A plant of inbred maize variety PH6ME produced by the method of claim 34.